

S/N 10/529120

In reply to the Office Action dated January 19, 2010

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) An analytical tool comprising:
a liquid introduction port,
at least one flow path for moving a sample liquid introduced through the liquid introduction port,
a reaction chamber communicating with said at least one flow path, and
a separation film disposed below the liquid introduction port and above said at least one flow path for filtering the sample liquid supplied to the liquid introduction port before introducing the sample liquid to said at least one flow path;
wherein the sample liquid is caused to move through the separation film in a thickness direction of the separation film for filtration;
wherein a branching flow path branches from said at least one flow path at a branching position upstream from and close to the reaction chamber;
wherein the branching flow path communicates with a first gas discharge port closed by a first seal film that is openable by needle insertion for supplying the sample liquid from the liquid introduction port to the branching position; and
wherein the reaction chamber communicates with a second gas discharge port closed by a second seal film that is openable by needle insertion for supplying the sample liquid beyond the branching position to the reaction chamber.
2. (Previously presented) The analytical tool according to claim 1, wherein said at least one flow path moves the sample liquid by capillary action.
3. (Original) The analytical tool according to claim 1, wherein the sample liquid comprises blood, and
wherein the separation film separates blood cells from the blood.

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4. (Original) The analytical tool according to claim 3, wherein the separation film comprises a porous film having a minimum pore size of 0.1~3.0 μm .

5. (Currently Amended) The analytical tool according to claim 1, wherein ~~the separation film is positioned upstream from~~ said at least one flow path extends in a plane that is parallel to the separation film and between said introduction port and said at least one flow path.

6. (Previously presented) The analytical tool according to claim 5, further comprising a liquid receiving portion for retaining the sample liquid passed through the separation film, the liquid receiving portion communicating with the liquid introduction port and said at least one flow path, and
wherein the separation film is spaced from a bottom surface of the liquid receiving portion.

7. (Previously presented) The analytical tool according to claim 6, further comprising:

a substrate in which the liquid receiving portion and said at least one flow path are formed;

a cover in which the liquid introduction port, the first discharge port and the second discharge port are formed; and

an adhesive layer interposed between the substrate and the cover, the adhesive layer including a through-hole for fitting the separation film.

8. (Previously presented) The analytical tool according to claim 6, wherein said at least one flow path extends radially from the liquid receiving portion.

9. (Previously presented) The analytical tool according to claim 1, wherein a plurality of flow paths are provided for communicating with a plurality of reaction

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chambers, respectively, at least two of the plurality of reaction chambers each containing a different reagent; and

wherein the tool is adapted to measure a plurality of items from a single kind of sample liquid.

10. (Previously presented) The analytical tool according to claim 9, wherein the plurality of reaction chambers are arranged on a common circle.

11-13. (Canceled)

14. (Previously presented) The analytical tool according to claim 1, wherein said at least one flow path has a principal, rectangular cross section which has a width of 10 to 500 μm and a depth of 5 to 500 μm and which satisfies $\text{depth/width} \geq 0.5$.

15. (Previously presented) The analytical tool according to claim 1, wherein said at least one flow path includes a hydrophilically-treated inner surface.

16. (Previously presented) The analytical tool according to claim 15, wherein the inner surface of said at least one flow path is so treated that a contact angle of pure water at the inner surface becomes 0~80 degrees.

17. (Currently Amended) An analytical tool, comprising:
a liquid introduction port,
at least one flow path for moving a sample liquid introduced through the liquid introduction port,
a reaction chamber communicating with said at least one flow path, and
a separation film disposed below the liquid introduction port and above said at least one flow path for filtering the sample liquid supplied to the liquid introduction port before introducing the sample liquid to said at least one flow path;
wherein the sample liquid is caused to move gravitationally through the separation film in a thickness direction of the separation film for filtration;

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wherein a branching flow path branches from said at least one flow path at a branching position upstream from and close to the reaction chamber;

wherein the branching flow path communicates with a first gas discharge port closed by a first seal member which is openable for supplying the sample liquid from the liquid introduction port to the branching position; and

wherein the reaction chamber communicates with a second gas discharge port closed by a second seal member which is openable for supplying the sample liquid beyond the branching position to the reaction chamber.

18. (Currently Amended) An analytical apparatus comprising an analytical tool and a hole-making mechanism, the analytical tool comprising:

a liquid introduction port,

at least one flow path for moving a sample liquid introduced through the liquid introduction port,

a reaction chamber communicating with said at least one flow path, and

a separation film for filtering the sample liquid supplied to the liquid introduction port before introducing the sample liquid to said at least one flow path;

wherein the sample liquid is caused to move ~~gravitationally~~ through the separation film in a thickness direction of the separation film for filtration;

wherein a branching flow path branches from said at least one flow path at a branching position upstream from and close to the reaction chamber;

wherein the branching flow path communicates with a first gas discharge port closed by a first seal film which is openable by needle insertion for supplying the sample liquid from the liquid introduction port to the branching position; ~~and~~

wherein the reaction chamber communicates with a second gas discharge port closed by a second seal film which is openable by needle insertion for supplying the sample liquid beyond the branching position to the reaction chamber; and

wherein the hole-making mechanism comprises a first hole-making needle for perforating the first seal film, and a second hole-making needle for perforating the second seal film.

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19. (New) The analytical tool according to claim 17, wherein said at least one flow path extends in a plane that is parallel to the separation film.

20. (New) The analytical tool according to claim 19, further comprising a liquid receiving portion for retaining the sample liquid passed through the separation film, the liquid receiving portion communicating with the liquid introduction port and said at least one flow path, and

wherein the separation film is spaced from a bottom surface of the liquid receiving portion.

21. (New) The analytical tool according to claim 20, further comprising:

a substrate in which the liquid receiving portion and said at least one flow path are formed;

a cover in which the liquid introduction port, the first discharge port and the second discharge port are formed; and

an adhesive layer interposed between the substrate and the cover, the adhesive layer including a through-hole for fitting the separation film.

22. (New) The analytical tool according to claim 21, wherein said at least one flow path extends radially from the liquid receiving portion.

23. (New) The analytical tool according to claim 21, wherein a plurality of flow paths are provided for communicating with a plurality of reaction chambers, respectively; and

wherein the plurality of flow paths communicate with the second discharge port via a common flow path formed in the cover.